

## CLAIMS

1. An apparatus for decoding an over-the-air transmission,  
2 comprising:  
a memory element; and  
4 a processing element configured to execute a set of instructions stored in  
the memory element, the set of instructions for:  
6 setting a current set of transmission parameters equal to a  
previous set of transmission parameters;  
8 decoding a received message first using the current set of  
transmission parameters;  
10 if the current set of transmission parameters fails to decode the  
received message, then:  
12 altering the previous set of transmission parameters by an  
increment to derive a new set of transmission parameters;  
14 setting the current set of transmission parameters equal to  
the new set of transmission parameters; and  
16 decoding the received message using the current set of  
transmission parameters.
2. The apparatus of Claim 1, wherein the previous set of  
2 transmission parameters comprises a Walsh space.
3. The apparatus of Claim 2, wherein altering the previous set of  
2 transmission parameters by an increment comprises adding a Walsh code  
sequence to the Walsh space.
4. The apparatus of Claim 2, wherein altering the previous set of  
2 transmission parameters by an increment comprises subtracting a Walsh code  
sequence from the Walsh space.

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5. The apparatus of Claim 2, wherein altering the previous set of transmission parameters comprises replacing the Walsh space with a neighboring Walsh space.

6. An apparatus for decoding a control message that contains a set of transmission parameters associated with a data packet, comprising:

a memory element; and  
a processing element configured to execute a set of instructions stored in the memory element, the set of instructions for:

receiving a new control message;  
attempting to first decode the new control message using an old Walsh space that was used to decode a previous control message; and  
if the old Walsh space fails to decode the new control message, then attempting to decode the new control message using a new Walsh space, wherein the new Walsh space is generated by incrementing the old Walsh space.

7. A method for decoding an over-the-air transmission, comprising:

receiving a new over-the-air transmission;  
attempting to first decode the new over-the-air transmission using an old Walsh space that was used to decode a previous over-the-air transmission; and  
if the old Walsh space fails to decode the new over-the-air transmission, then attempting to decode the new over-the-air transmission using a new Walsh space, wherein the new Walsh space is generated by incrementing the old Walsh space.

8. A method for decoding a transmission received over-the-air, comprising:

setting a current set of transmission parameters equal to a previous set of transmission parameters;

decoding a received transmission first using the current set of transmission parameters;

if the current set of transmission parameters fails to decode the received transmission, then:

10 altering the previous set of transmission parameters by an  
increment to derive a new set of transmission parameters;  
12 setting the current set of transmission parameters equal to the  
new set of transmission parameters; and  
14 decoding the received transmission using the current set of  
transmission parameters.

9. The method of Claim 8, wherein the previous set of transmission  
2 parameters comprises a Walsh space.

10. The method of Claim 9, wherein altering the previous set of  
2 transmission parameters by an increment comprises adding a Walsh code  
sequence to the Walsh space.

11. The method of Claim 9, wherein altering the previous set of  
2 transmission parameters by an increment comprises subtracting a Walsh code  
sequence from the Walsh space.

12. The method of Claim 9, wherein altering the previous set of  
2 transmission parameters comprises replacing the Walsh space with a  
neighboring Walsh space.

13. An apparatus for decoding a transmission received over-the-air,  
2 comprising:  
means for storing a previous set of transmission parameters,  
4 wherein the previous set of transmission parameters was used to successfully  
decode a previously received transmission;  
6 means for altering the previous set of transmission parameters to  
derive a new set of transmission parameters; and  
8 means for decoding a current transmission using the previous set  
of transmission parameters and decoding the current transmission using the  
10 new set of transmission parameters if the previous set of transmission  
parameters fails to decode the current transmission.

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